

ABSTRACT

A DNA synthesis reaction-enhancer comprising at least one kind selected from the group consisting of acidic substances and cationic complexes; a DNA synthesis method in which during a DNA synthesis reaction a reaction is carried out in the presence of the above enhancer by using DNA polymerase; a DNA synthesis reaction composition comprising the above enhancer; a DNA synthesis reaction composition comprising two or more kinds of DNA polymerases each having 3' → 5' exonuclease activity; a DNA synthesis method in which during a DNA synthesis reaction two or more kinds of DNA polymerases each having 3' → 5' exonuclease activity are used; a kit for use in *in vitro* DNA synthesis, comprising two or more kinds of DNA polymerases each having 3' → 5' exonuclease activity; and a kit for use in *in vitro* DNA synthesis, wherein the kit comprises the DNA synthesis reaction-enhancer and DNA polymerase.

According to the present invention, DNA synthesis can be carried out at an efficiency more excellent as compared to conventional DNA synthesis reaction.